



## Chelmsford Public Schools Administrative Offices

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May 29, 2000

**BERNARD DINATALE**  
EXECUTIVE DIRECTOR OF INFORMATION  
AND TECHNOLOGY

RECEIVED

JUN - 5 2000

FCC MAIL ROOM

Federal Communications Commission  
Office of the Secretary  
445 12th Street SW, Room TW-A325  
Washington, DC 20554

In the matter of: Request for Review by the Chelmsford Public Schools of Decision of  
Universal Service Administrator

Reference: FCC Docket Nos. 97-21 and 96-45

Re: Billed Entity Number: 120395  
Application Number: 122372

Funding Request Number: 176408  
Funding Year: 1999-2000

Dear Sirs:

This letter serves as an official appeal to the Universal Service Administrator's ruling on the appeal of the above referenced application for funding of telephone system for a renovated school building.

This project is divided into three parts:

1. Standard voice PBX/Centrex telephone distribution switching system (TeleCenter 21). The cost of this equipment is **\$28,018** with no end user equipment. See attached documentation. This is eligible under the Eligible Services List, paragraphs 458 and 459.
2. Infrastructure materials such as wiring, plates, and conduit - cost was **\$38,964**.
3. Labor for installation of infrastructure and PBX - cost **\$38,962**.

This is the cost we paid for the telephone system, in addition, we have paid an additional sum to produce an integrated video system. The total cost of the project was \$180,000. This integrated video system is non-eligible and was never included in the Form 471 application.

We are at a loss to understand the denial of this service and request through the appeals process this decision be reversed.

Sincerely,

*Bernard DiNatale*

Bernard DiNatale  
Executive Director of  
Information and Technology

Enclosures

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List A B C D E

## **SIGNET INTEGRATED COMMUNICATION SYSTEM (RAULAND) FEATURES:**

Based upon our previous experience, we feel the Rauland-Berg integrated communication system solution will benefit the Clearwater School District by offering the following features:

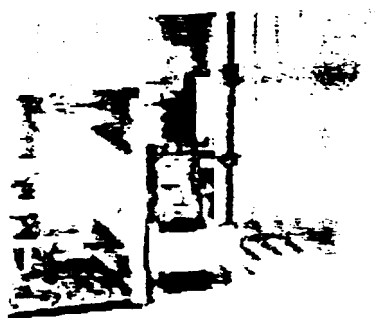
### **Enhanced 911**

- Automatic Location Identification
- Individual School Name
- Street Address and City
- Building Unit Identifier
- Call Back Telephone Number
- Main Entry Wall Display – '911 called from 3454, go to second floor'
- Disconnected calls are automatically re-routed back to that room/extension

### **Integrated Intercom/Public Address Functions**

- Always An Answer – automatically routes important communications to the free device when the classroom telephone or speaker is busy
- Two-Way Group Instruction Via the Classroom Speaker
- Emergency/Normal Call-Ins
- Privacy Tone Speaker
- Intercom/Handset Conversion
- Programmable Buttons on Classroom Telephones for Emergency Calls, Nurse, etc.
- Page Exclusion – automatically mutes speakers associated with the telephone to avoid feedback
- Telephone/Toll Restriction
- Built-in diagnostics for remote troubleshooting and maintenance
- Multiple memory configurations enable the system to operate differently during periods of the day and/or week (ex. day care program, night classes, etc.)
- Off Premise Security Monitoring (can listen in on individual speakers to hear intruders)
- Personal Identification Numbers allow selected personnel to perform functions from restricted telephones (paging announcements)
- Emergency "All Call"

- Long Distance Reimbursement
- Night Service – night ringing through public address speakers
- Call Forwarding
- Conference Calling
- Personal and System Wide Repertory Dialing
- Student Phone – allows students controlled access to outside lines (will limit the length of call and the number of times that number is dialed)



### FEATURES

- Provides Sixteen (16) Simultaneous, Global Telephone Conversation Paths
- Also Provides Up to Three (3) Simultaneous, Global, Amplified Voice Audio Channels
- Includes Priority Paging Microphone
- Multiple Channel Audio Program Distribution
- Built-In Full Feature Master Clock
- Non-Volatile User-Configurable Memory
- Time-Based System Reconfiguration
- Advanced Microcomputer Design
- Built-In Diagnostics
- Completely Self-Contained Electronics

### SPECIFICATIONS

**Power Required:** 105 - 130V AC @ 3.0 amps

**Power Supply Output:** 12V DC @ 4.0 amps, 5V DC @ 2.0 amps

**Environmental Parameters:**

**Temperature:** 40°F (0°C) to 90°F (32°C)

**Relative Humidity:** 0 to 85%

**System Capacity:**

**Telephone Ports:** Twelve (12) (telephones, trunks, or both)

**Room Stations:** 256 (speakers, call switches, telephones - in any combination)

**Audio Channels:**

**Telephone Linkage:** Sixteen (16) global telephone links

**Intercom/Paging Channels:** (One (1) standard, expandable to three (3) global channels)

**Intercom Amplifier:**

**System Capacity:** One (1) amplifier standard, expandable to three (3) amplifiers

**Power Output:** Twelve (12) watts @ 25V rms

**Controls:** VOX or PTT

**Audio Inputs:** Four (4) line level inputs (audio program sources)  
One (1) microphone input (Lo-Z)

**Dial Registers:** Two (2) registers standard, expandable to six (6) registers

**Master Clock Capacity:** 255 events

Eight (8) Zone Relays

Four (4) Schedules

Sixteen (16) Holidays

Eight (8) Time Zones

(independent of paging zones)

Corrects all Rauland digital and analog secondary clocks

**Wiring Requirements:**

**Administrative Telephones:** Twisted pair

**Digital Display (Data):** Shielded pair

**Classrooms:** TC2114 - Four (4) conductors (two (2) twisted pairs or three (3) conductor shielded cables)  
TC2113 - One (1) shielded pair

(Includes speaker, call switches, and telephone)

**Field Wire Terminations:** All field wiring terminates on 25-pair Telco connectors

**Mounting:** Mounts in EIA standard 19" equipment rack or with WM2100 Wall-Mounting Kit; mounts directly to wall

**Additional Data:** Accommodates 2, 3 or 4 digit dialing  
Twelve (12) individually addressable digital displays  
Two (2) RS-232C serial data ports  
System configuration/programming  
System diagnostics (on or off site)  
System activity logging

**Dimensions:** 19" (48.3 cm) wide, 14" (35.6 cm) high,  
11" (27.9 cm) deep

**Shipping Weight:** 20 lbs. (9.1 kg)

**Associated Equipment:** TC2105 - Expander Chassis  
TC2106 - Expander Power Supply  
TC2113/TC2114 - Station Line Cards  
TC2120 - Relay Line Card  
TC2150 - Master Station Module  
TC2161 - Intercom Amplifier  
TC4180 Series - Trunk Interface Equipment  
TC4190 - Dual-Dial Register Module  
WM2100 - Wall-Mount Adapter Kit  
Rauland DAX and FAX Series Amplifiers  
Rauland Fireplex™ Fire Alarm System  
Rauland Personal Alert System

Specifications subject to change without notice.

## RAULAND-BORG CORPORATION

3450 West Oakton Street, Skokie, Illinois 60076-2958 • Tel: (847) 679-0900 • FAX: (847) 679-0625

• Canada: RAULAND-BORG (CANADA) INC. • 6535 Millcreek Drive, Unit 5, Mississauga, Ontario, Canada L5N 2M2 • (905) 821-2225 • FAX: (905) 821-8325



### FEATURES

- Provides Additional Power for Applications Requiring Multiple Intercom Amplifiers
- Provides Solid-State Reliability
- Mounts Conveniently in TC2100 Central Switching Exchange
- Modular Connectors for Easy Installation

### SPECIFICATIONS

**Output Voltage:** 12V DC

**Output Current:** 6.0 amps

**Power Requirements:** 105V AC to 130V AC @ 3.0 amps

**Dimensions:** 6" (15.2 cm) wide, 3" (7.6 cm) high,  
9" (22.9 cm) deep

**Mounting:** Dedicated Slot in TC2100 Central Switching Exchange

**Shipping Weight :** 4 lbs. (1.8 kg)

**Associated Equipment:** TC2100 Central Switching Exchange  
TC2161 Intercom Amplifier

### DESCRIPTION

The Rauland TC2106 Expander Power Supply provides additional DC power for Telecenter® System 21 applications requiring more than one TC2161 Intercom Amplifier.

The TC2106 provides 12V DC @ 6.0 amps. The

output voltage is regulated to ensure that there will be no hum on the intercom audio.

The TC2106 mounts in an empty slot provided in the TC2100 Central Switching Exchange. Modular connectors make for quick, convenient installation.

Specifications subject to change without notice.

### RAULAND-BORG CORPORATION

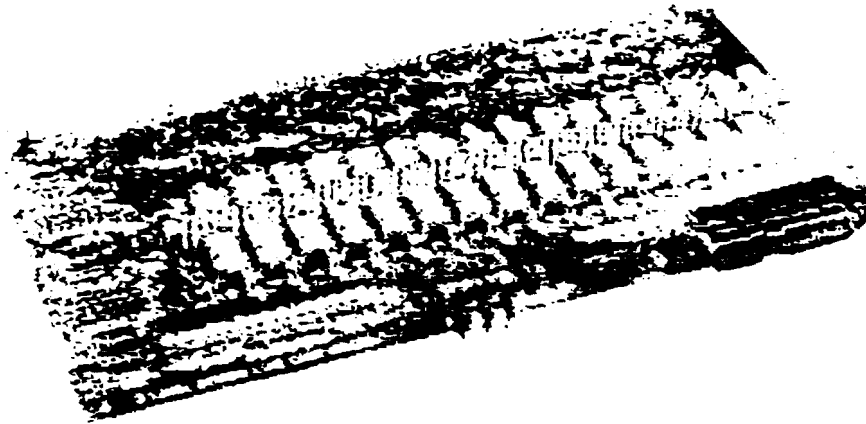
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# TELECENTER SYSTEM 21

## COMMUNICATION SYSTEM COMPONENTS

TC2113  
Station Line Card  
3-Conductor



### FEATURES

- Provides Switching and Termination for 16 Room Stations
- Supports Speakers, Call Switches and a Telephone for Each Room Station
- Mounts Conveniently in TC2100 Central Switching Exchange or in TC2105 SLC Expander Chassis
- Equipped with a Standard 25-Pair Telco Connector for all Field Wire Terminations
- Provides Mounting for TC2120 Relay Line Card
- Provides Access to 16 Global Telephone Communication Paths
- Provides Access to All Audio channels When Equipped with TC2120 Relay Line Card

### SPECIFICATIONS

Capacity: Sixteen (16) lines (room stations)  
Maximum Audio Load: Single Port: 10 watt  
All Ports: 25 watts  
Field Wiring: 3 Conductors Each Position: Two conductor shielded cable minimum  
Dimensions: 12.75" (32.4 cm) wide, 7" (17.8 cm) deep  
Mounting: TC2100 Central Switching Exchange or TC2105 SLC Expander Chassis

Shipping Weight: 1.0 lbs. (0.5 kg)  
Associated Equipment: TC2100—Central Switching Exchange  
TC2105—SLC Expander Chassis  
TC2120—Relay Line Card  
CRT4—Staff Telephone  
TC4312—Single Line Telephone

**NOTE:** THE TC2114 AND TC2113 STATION LINE CARDS MAY NOT BE MIXED IN A SINGLE SYSTEM.

### DESCRIPTION

The TC2113 Station Line Card - Three (3) Conductor (SLC3) provides termination and switching for sixteen (16) room stations in a Telecenter® System 21 communications system. Each station can consist of: a speaker, call switches (Normal, Emergency, Privacy), and audio program select in any combination, and a staff telephone (dialing or non-dialing).

If multi-channel audio is required, the TC2120 Relay Line Card may be added. The TC2120 expands the audio channel capacity of the card from one to three.

The TC2113 includes a 25-pair Telco connector for all field wiring. This is designed for use with standard telephone punch blocks on distribution frames. Conveniently located on the rear of the card, the connector allows for easy removal and insertion of the module for inspection and servicing.

The TC2113 mounts in vertical slots in the TC2100 Central Switching Exchange or in the TC2105 SLC Expander Chassis. Up to five (5) TC2113's may be mounted in the TC2100. An additional eleven (11) TC2113's may be mounted in the TC2105.

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